

For Research Use Only

TORC1/CRTC1 Polyclonal antibody

Catalog Number:10441-1-AP

Featured Product

13 Publications



Basic Information

Catalog Number:

10441-1-AP

Size:

150ul , Concentration: 600 ug/ml by Nanodrop and 333 ug/ml by Bradford method using BSA as the standard;

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG0693

GenBank Accession Number:

BC028050

GeneID (NCBI):

23373

UNIPROT ID:

Q6UUV9

Full Name:

CREB regulated transcription coactivator 1

Calculated MW:

75 kDa

Observed MW:

68 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB: 1:500-1:1000

IP: 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC: 1:50-1:500

Applications

Tested Applications:

WB, IP, IHC, ELISA

Cited Applications:

WB, IHC, IF, IP

Species Specificity:

human, mouse

Cited Species:

human, mouse, rat

Positive Controls:

WB : mouse kidney tissue, A431 cells, Jurkat cells, L02 cells, mouse brain tissue

IP : mouse kidney tissue,

IHC : human colon cancer tissue, mouse brain tissue

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Background Information

CRTC1, also named as MECT1, TORC1, and WAMTP1, belongs to the TORC family. It is a transcriptional coactivator for CREB1 which activates transcription through both consensus and variant cAMP response element (CRE) sites. CRTC1 acts as a coactivator, in the SIK/TORC signaling pathway, being active when dephosphorylated and acts independently of CREB1 'Ser-133' phosphorylation. It enhances the interaction of CREB1 with TAF4. CRTC1 regulates the expression of specific CREB-activated genes such as the steroidogenic gene, StAR. It is a potent coactivator of PGC1alpha and inducer of mitochondrial biogenesis in muscle cells. CRTC1 is also a coactivator for TAX activation of the human T-cell leukemia virus type 1 (HTLV-1) long terminal repeats (LTR). In the hippocampus, CRTC1 involved in late-phase long-term potentiation (L-LTP) maintenance at the Schaffer collateral-CA1 synapses. It may be required for dendritic growth of developing cortical neurons. This is a rabbit polyclonal antibody raised against residues near N terminus of human CRTC1. CRTC1 has some isoforms produced by alternative splicing with MW of 67 kDa, 68 kDa and 62 kDa. Sometimes it appears as a 75-80 kDa band probably due to phosphorylation (PMID: 17183642; 22770221)

Notable Publications

| Author | Pubmed ID | Journal | Application |
|----------------|-----------|--------------------|-------------|
| Toh Hean Ch'ng | 26388727 | Front Mol Neurosci | IF |
| Yiwen Lu | 34616019 | Nat Cell Biol | WB |
| Lei Wu | 29116185 | Sci Rep | WB |

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

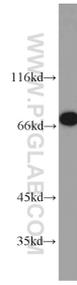
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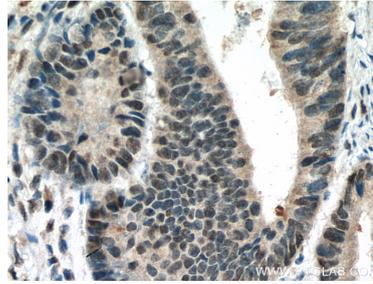
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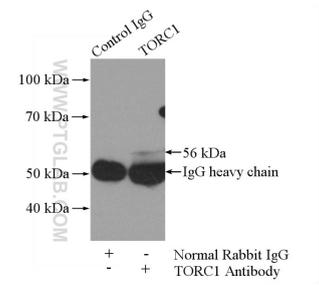
Selected Validation Data



mouse kidney tissue were subjected to SDS PAGE followed by western blot with 10441-1-AP (TORC1 antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human colon cancer tissue slide using 10441-1-AP (TORC1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



IP result of anti-TORC1/CRTC1 (IP:10441-1-AP, 4ug; Detection:10441-1-AP 1:800) with mouse kidney tissue lysate 4000ug.